

2
39. The method of claim 38 further comprising the step of varying the information content of at least one stream of packets with the identity of the user to whom the at least one stream of packets are delivered.

3 2
40. The method of claim 39 wherein the varied information content is inserted into the stream of audio and/or visual information before such stream is converted into a stream of packets.

4 2
41. The method of claim 39 wherein the varied information contains advertising information.

15
42. The method of claim 38 further comprising the step of generating an audio output and/or a visual display from the stream of packets received by the user.

7
43. The method of claim 38 further comprising the steps of:

storing a first stream of packets received by the user at a first time and
at a later time, inserting the first stream of packets into a second stream of packets received by the user.

9 7
44. The method of claim 43 further comprising the step of converting the combined first and second streams of packets into an audio output and/or visual display.

10 7
45. The method of claim 43 wherein the content of the first stream of packets is varied depending on the identity of the user.

11 10
46. The method of claim 45 wherein the first stream of packets contains advertising information.

12 1
47. The method of claim 38 further comprising the steps of:

storing a first stream of packets at an intermediate point in the distribution architecture at a first time and at a later time, inserting the first stream of packets into a second stream of packets.

¹³
48. The method of claim ¹²47 wherein the content of the first stream of packets is varied depending on the identity of one or more users.

¹⁴
49. The method of claim ¹³48 wherein the first stream of packets contains advertising information.

⁵
50. The method of claim ⁴41 wherein the records that are accumulated indicate how many users received specific advertising information.

¹⁵
51. The method of claim ¹38 wherein at least one stream of packets comprises copyrighted selections and the records that are accumulated indicate which users received specific copyrighted selections.

¹⁶
52. The method of claim ¹38 wherein at least one stream of packets comprises audio and/or visual selections and the records that are accumulated indicate which users did or did not listen to and/or view the entire selection.

¹⁷
53. The method of claim ¹38 further comprising the steps of:

compressing the stream of packets in their passage from source to user, and

decompressing the stream of packets near the user.

¹⁸
54. The method of claim ¹⁷53 wherein the compressing step uses a compression algorithm that is selected in accordance with the content of the information being communicated in the stream of packets.

38

20
55. The method of claim 53 wherein the compressing step uses a compression algorithm and the decompression step uses a decompression algorithm that varies with the user to whom the stream of packets are delivered.

19 18
56. The method of claim 54 wherein the compressing step inserts into each packet an identification of the compression algorithm used and the decompressing step monitors each packet to read such identification and to vary its decompression algorithm in response thereto.

21 17
57. The method of claim 53 wherein the compressing step uses a compression algorithm that varies with the characteristics of the communications network.

22 17
58. The method of claim 53 wherein the decompressing step uses a decompression algorithm that varies with the characteristics of the communications network.

23
59. The method of claim 38, further comprising the step of varying the information content of at least one stream of packets with the identity of the users to whom the at least one stream of packets are delivered.

8 7
60. The method of claim 43 wherein the content of the first stream of packets is varied depending on the identity of the users to whom the first stream of packets are delivered.

24 1
61. The method of claim 38, wherein the records that are accumulated include user information and system-related information.

25
62. A method for transmitting at least one stream of audio and/or visual information over a communications network to one or more users comprising the steps of:

controlling the routing of the stream of information through the network in response to selection signals received from the users, and

39

monitoring the reception of the stream of information by the users and accumulating records relating to the reception of the stream of information by the users, wherein at least one stream of information comprises an audio and/or visual selection and the records that are accumulated indicate the time that a user starts receiving the audio and/or visual selection.

24
63. The method of claim ²⁵62 further comprising the step of varying the information content of at least one stream of information with the identity of the user to whom the at least one stream of information is delivered.

27
64. The method of claim ²⁴63 wherein the varied information content is inserted into the stream of audio and/or visual information.

28
65. The method of claim ²⁵62 further comprising the steps of:

storing a first stream of information received by the user at a first time and

at a later time, inserting the first stream of information into a second stream of information received by the user, wherein the content of the first stream of information is varied depending on the identity of the user.

29
66. The method of claim ²⁸65 wherein the first stream of information contains advertising information.

30
67. The method of claim ²⁵62 further comprising the steps of:

storing a first stream of information at an intermediate point in the distribution architecture at a first time and

at a later time, inserting the first stream of information into a second stream of information, wherein the content of the first stream of information is varied depending on the identity of one or more users.

40

31
68. The method of claim 67 wherein the first stream of information contains advertising information.

41
69. The method of claim 63 wherein the records that are accumulated indicate how many users received specific advertising information.

42
70. The method of claim 63 wherein at least one stream of information comprises copyrighted selections and the records that are accumulated indicate which users received specific selections.

43
71. The method of claim 63 wherein at least one stream of information comprises audio and/or visual selections and the records that are accumulated indicate which users did or did not listen to and/or view the entire selection.

32
72. The method of claim 62 further comprising the steps of:

storing a first stream of information received by the user at a first time and

at a later time, inserting the first stream of information into a second stream of information received by the user, wherein the content of the first stream of information is varied depending on the identity of the users to whom the first stream of information is delivered.

33
73. The method of claim 62, further comprising the step of varying the information content of at least one stream of information with the identity of the users to whom the at least one stream of information is delivered.

34
74. The method of claim 62 further comprising the steps of:

compressing the stream of information in its passage from source to user, and

decompressing the stream of information near the user.

41

35
75. The method of claim 74³⁴ wherein the compressing step uses a compression algorithm that is selected in accordance with the content of the information being communicated in the stream of information.

34
76. The method of claim 74³⁴ wherein the compressing step uses a compression algorithm and the decompression step uses a decompression algorithm that varies with the user to whom the stream of packets are delivered.

37
77. The method of claim 74³⁴ wherein the compressing step uses a compression algorithm that varies with the characteristics of the communications network.

38
78. The method of claim 74³⁴ wherein the decompressing step uses a decompression algorithm that varies with the characteristics of the communications network.

39
79. The method of claim 62²⁵ wherein multiple streams of audio and/or visual information are transmitted over the communications network and the user can select which stream to receive.

40
80. The method of claim 62²⁵, wherein the records that are accumulated include user information and system-related information.

44
81. A communication system comprising:
means for converting at least one stream of audio and/or visual information into a stream of addressed digital packets complying with the specifications of a network communication protocol,
means for routing such stream via a communication network to selected users,
means for controlling the routing of the stream of packets in response to selection signals received from the users, and

42

means for monitoring the reception of packets by the user and for accumulating records that indicate which streams of packets were received by which users, wherein at least one stream of packets comprises an audio and/or visual selection, and the means for monitoring further includes means for accumulating records that indicate the time that a user starts receiving the audio and/or visual selection.

46
82. The method of claim 81 further comprising means for varying the information content of at least one stream of packets with the identity of the user to whom the at least one stream of packets are delivered. 44

46
83. The method of claim 82 wherein the varied information content is inserted into the stream of audio and/or visual information before such stream is converted into a stream of packets. 45

47
84. The method of claim 82, wherein the varied information contains advertising information. 45

48
85. The communication system of claim 81 further comprising means for generating from the stream of packets received at the user an audio output and/or a visual display. 44

49
86. The communication system of claim 81 further comprising means for storing packets received at the user during a first time period and means for inserting such packets into other packets received at the user at a later time period. 44

50
87. The communication system of claim 86 wherein the content of the stream of packets received during the first time period is varied depending on the identity of the user. 49

51
88. The communication system of claim 87 wherein the stream of packets received during the first time period contains advertising information. 50

43

52
89. The communication system of claim 81 further comprising means for storing packets at an intermediate point in the distribution architecture at a first time and means for inserting such packets into other packets to be received by one or more users at a later time period.

53
90. The communication system of claim 89 wherein the content of the stream of packets received during the first time period is varied depending on the identity of the one or more users.

54
91. The communication system of claim 90 wherein the stream of packets received during the first time period contains advertising information.

56
92. The communication system of claim 81 further comprising:
means for compressing the stream of packets in their passage from source to user, and
downstream of the compressing means, means for decompressing the stream of packets.

57
93. The communication system of claim 92 wherein the compressing means is located near the converting means and the decompressing means is located at the user.

58
94. The communication system of claim 92 wherein the compressing means uses a compression algorithm that is selected in accordance with the content of the information being communicated in the stream of packets.

59
95. The communication system of claim 92 wherein the compressing means inserts into each packet an identification of the compression algorithm used and the decompressing means monitors each packet to read such identification and to vary its decompression algorithm in response thereto.

60
96. The method of claim 92⁵⁶ wherein the compressing means uses a compression algorithm and the decompression means uses a decompression algorithm that varies with the user to whom the stream of packets are delivered.

61
97. The method of claim 92⁵⁶ wherein the compressing means uses a compression algorithm that varies with the characteristics of the communications network.

62
98. The method of claim 92⁵⁶ wherein the decompressing means uses a decompression algorithm that varies with the characteristics of the communications network.

63
99. The method of claim 81 further comprising means for varying the information content of at least one stream of packets with the identity of the users to whom the at least one stream of packets are delivered.

55
100. The communication system of claim 89⁵² wherein the content of the stream of packets received during the first time period is varied depending on the identity of the users to whom the stream of packets are delivered.

64
101. The method of claim 81⁴⁴, wherein the records that are accumulated include user information and system-related information.

65
102. A method for transmitting message packets over a communications network comprising the steps of:

converting at least one stream of audio and/or visual information into at least stream of addressed digital packets complying with the specifications of a network communication protocol,

for each stream, routing such stream to one or more users,

controlling the routing of the stream of packets in response to selection signals received from the users, and

monitoring the reception of packets by the users and accumulating records that indicate which streams of packets were received by which users, wherein at least one stream of packets comprises audio and/or visual selections and the records that are accumulated indicate how many users did or did not listen to and/or view the entire selection.

46
103. A method for transmitting at least one stream of audio and/or visual information over a communications network to a plurality of users comprising the steps of:

controlling the routing of the stream of information through the network in response to selection signals received from the users, and

1
monitoring the reception of the stream of information by the users and accumulating records relating to the reception of the stream of information by the users, wherein at least one stream of information comprises audio and/or visual selections and the records that are accumulated indicate how many users did or did not listen to and/or view the entire selection.

47
104. A method for transmitting message packets over a communications network comprising the steps of:

converting at least one stream of audio and/or visual information into at least stream of addressed digital packets complying with the specifications of a network communication protocol,

for each stream, routing such stream to one or more users,

controlling the routing of the stream of packets in response to selection signals received from the users, and

monitoring the reception of packets by the users and accumulating records that indicate which streams of packets were received by which users, wherein at least one stream of packets comprises audio and/or visual selections and the records that are accumulated indicate which users did or did not listen to and/or view the entire selection.

46